Paper No. 41

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KEVIN C. SPENCER

Appeal No. 1997-0296
Application 08/378,086

HEARD: June 14, 2001

Before KIMLIN, PAK, and DELMENDO, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 83-121, all the claims remaining in the present application. Claim 83 is illustrative:

> 83. A method of improving the aroma or flavor or both of chocolate, a precursor thereof or a chocolate-containing product, which comprises:

b) saturating the volume of chocolate, precursor thereof or chocolate-containing product with the atmosphere to more than 50% volume of full saturation with said noble gas, and;

c) maintaining the saturation substantially throughout the volume of the chocolate, precursor thereof or chocolate-containing product when the chocolate-precursor or chocolate-containing product is stored in said containing means.

The examiner relies upon the following references as evidence of obviousness:

Bagdigian	2,569,217	Sep. 25, 1951
Chalin	3,997,680	Dec. 14, 1976

L'Air Liquide (French '669) FR 1,339,669 Sep. 02, 1963

Patent Abstracts of Japan, Vol. 8, No. 30, Feb. 8, 1984, Masad Kawai, "Sterilization of Cocoa Liquor", abstract group no. C209 (Japanese '209).

Appellant's claimed invention is directed to a method of improving the aroma or flavor, or both of chocolate or a precursor thereof. The method entails injecting an atmosphere of argon, neon, krypton, xenon or mixtures thereof, into chocolate, or a precursor thereof. The chocolate or precursor is saturated with the noble gas to more than 50% volume of full saturation.

Appellant submits at page 3 of the principal brief that "[c]laims 83-121 are presented separately and should be considered individually, consisting [sic, consistent] with the separate arguments for patentability for each set forth below". However, the ARGUMENT section of appellant's brief presents substantive arguments only for claims 83, 85, 86, 105, 106, 92-94 and 112-114. Pages 9-15 of appellant's principal brief set forth nothing more than a recitation of the features of the referenced claims along with the conclusory remark that the recited features are neither disclosed or suggested by any of the cited references. Accordingly, other than claims 85, 86, 105, 106, 92-94 and 112-114, the appealed claims stand or fall together with claim 83. In re Nielson, 816 F.2d 1567, 1572, 2 USPQ2d 1525, 1528 (Fed. Cir. 1987); Ex parte Ohsumi, 21 USPQ2d 1020, 1023 (Bd. of Pat. Appls. and Int. 1991). See also 37 CFR 1.192 c(7) and c(8).

We have thoroughly reviewed each of appellant's arguments for patentability, as well as the declaration evidence relied upon in support thereof. However, we are in complete agreement

§ 103 in view of the applied prior art. Accordingly, we will sustain the examiner's rejection for essentially those reasons expressed in the answer, and we add the following primarily for emphasis.

Appellant's specification, at page 9, describes the state of the prior art as follows:

> Cocoa is very expensive, and the process yield thereof is critically important. Even when conventional processes are optimized, however, significant losses in quality and effective yield occur during uncontrolled oxidation at several steps of the process, especially those steps involving cocoa liquor or butter. In the finished product, oxidative instability contributes quite strongly to off-flavors, bad appearance, and limited shelf life. Other important quality parameters are also deleteriously affected by oxidative instability. While oxygen from air is responsible for a portion of the oxidation, catalysts for oxidation and oxygen sources exist in the product and process stream as well. While blanketing with nitrogen or other inert gas is effective for merely removing air, it is not effective to inhibit internal oxidations in addition to air oxidation.
>
> Thus, a need exists for a method by which internal oxidation as well as air oxidation of chocolate may be inhibited.

Accordingly, appellant acknowledges that oxidation of chocolate was a known problem in the art at the time of filing present

art method of blanketing chocolate with nitrogen or other inert gases. However, our review of the prior art cited by the examiner leads to the conclusion that the examiner correctly determined that it would have been obvious for one of ordinary skill in the art to inhibit the oxidation of chocolate or its precursor by injecting a noble gas into the chocolate material. In our view, one of ordinary skill in the art would have possessed the requisite reasonable expectation of success in doing so. In re O'Farrell, 853 F.2d 894, 903, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988).

French '669 expressly discloses the injection of rare, or noble, gases, preferably argon, into materials, such as vitamin C, adrenaline, vegetable and animal oils, as means for inhibiting the oxidation of the material.[1] Also, French '669 specifically teaches that injecting, or sparging, with noble gases is more effective than the prior art use of nitrogen. Consequently, since it was admittedly known in the art to use inert gases to inhibit oxidation of chocolate, and Bagdigian evidences that it

was known in the art to prevent oxidation of foods such as coffee, roasted nuts, etc., by surrounding the food with inert gases such as argon and neon, we find the conclusion inescapable that it would have been obvious for one of ordinary skill in the art to prevent the oxidation of chocolate and its precursors by injecting noble gases therein. Furthermore, since page 11 of appellant's specification defines a "precursor" of chocolate as "any natural product such as cacao [sic, cocoa] beans or raw cocoa which may be used as a source of chocolate" (lines 23-25), the appealed claims encompass the method of sparging cocoa beans or raw cocoa with one of the recited noble gases.

Appellant relies upon a rule 132 declaration of the inventor as evidence of unexpected results. However, like the examiner, we find that the declaration evidence is not of sufficient probative value to outweigh the evidence of obviousness represented by the applied art. In particular, we agree with the examiner that declaration is substantially short on the particulars of the testing parameters for the reported results. In the words of the examiner, "it has not been made clear from

packaging conditions (e.g. pre-flushed with gas?) were not presented or verified as having been common in value to each test" (page 5 of answer). The burden of establishing unexpected results is on the party asserting them and it cannot be simply presumed that all the controlling parameters were the same for all of the reported tests. Furthermore, the declaration evidence is hardly commensurate in scope with the degree of protection sought by the appealed claims. In re Grasselli, 713 F.2d 731, 743, 218 USPQ 769, 778 (Fed. Cir. 1983). For instance, while the declaration demonstrates the effect of different gases upon "chocolate", the claims are not so limited but, rather, embrace methods of injecting the gases into precursors such as cocoa beans or raw cocoa. Furthermore, notwithstanding appellant's arguments to the contrary, the declaration provides no evidence of treating with one of the claimed gases, mainly xenon and mixtures thereof. Moreover, we are not satisfied that appellant has established that the declaration results would be considered unexpected by one of ordinary skill in the art in light of the disclosure of French '669, which specifically discloses the

Just as unexpected results are evidence of nonobviousness, expected results are evidence of obviousness. In re Skoll 523 F.2d 1392, 1397, 187 USPQ 481, 484 (CCPA 1975).

As for the various levels of saturation recited in claims 85, 86, 105 and 106, we are convinced that one of ordinary skill in the art would have been motivated to effect the highest level of saturation possible in order to obtain the greatest inhibition of oxidative degradation.

Regarding claims 92, 94, 112 and 114, which recite a mixture of argon and xenon, as noted above, the declaration evidence provides no data for testing with xenon. Also, whereas claims 93 and 113 define an atmosphere of 50% neon and 50% helium, the declaration fails to provide results from testing such a mixture.

In conclusion, based on the foregoing, it is our judgment that the evidence of obviousness presented by the examiner outweighs the evidence of nonobviousness relied upon by the appellant. Accordingly, the examiner's decision rejecting the appealed claims is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

EDWARD C. KIMLIN Administrative Patent Judge	)	
CHUNG K. PAK Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
ROMULO H. DELMENDO Administrative Patent Judge	)	

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NORMAN F. OBLON
OBLON, SPIVAK, MCCLELLAND,
MAIER & NEUSTADT
FOURTH FLOOR
1755 JEFFERSON DAVIS HWY.
ARLINGTON, VA 22202